1884MNRAS..44..373P



## *Sextant Observations of Comet Pons-Brooks, made on board the ship "Earnock."* By Capt. George F. Parson.

(*Communicated by Capt. H. Toynbee.*)

| 1884. | A.T.S. | G.M.T. | Lat. S. | Long. W. | Aldebaran. | β Ceti. | Sirius. | Achernar. | Fomalhaut. | Canopus. | α Arietis. | Rigel. | Markab. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | P.M. | d h m s | ° ′ | ° ′ | ° ′ | ° ′ | ° | ° ′ | ° ′ | ° ′ | ° ′ | ° ′ | ° ′ |
| Jan. 15 | 8 10 | 15 10 28 41 | 12 15 | 32 35 | 78 59 | 24 39* | | | | | | | |
| 16 | 8 33 | 16 10 55 30 | 14 48 | 33 10 | 78 15 | | 106 39 | | 26 36 | | | | |
| 17 | 7 48 | 17 10 10 0 | 17 0 | 33 2 | 77 29 | | | | 25 27 | 92 38 | | 84 4 | 22 55† |
| | 8 20 | 17 10 43 0 | | | | 20 19 | | | 25 17 | | | | 23 1† |
| 18 | 7 50 | 18 10 12 0 | 19 6 | 33 6 | | 18 10 | | | 24 9 | | | 82 20 | 24 8‡ |
| 19 | 8 15 | 19 10 40 0 | 21 50 | 33 0 | | 16 13 | | | 23 9 | | | 80 49 | 25 29§ |
| 20 | 8 0 | 20 10 20 0 | 24 14 | 31 50 | | 14 20 | | | 22 20 | | | 79 29 | 26 42§ |
| 21 | 8 24 | 21 10 38 0 | 25 50 | 30 32 | | 12 31 | | | 21 39 | | | 78 7‖ | |
| 23 | 8 35 | 23 10 35 0 | 25 48 | 27 0 | | 9 22 | | 44 52 | 20 42 | | 49 16 | 75 32¶ | |
| 25 | 8 15 | 25 10 15 0 | 29 35 | 25 56 | | 7 1 | | 41 33 | 20 30 | | 50 23 | 73 19** | |
| 26 | 8 50 | 26 10 40 0 | 31 0 | 24 10 | | 6 18 | | 39 59†† | | | | | |
| 27 | 9 5 | 27 10 47 0 | 32 40 | 22 0 | | 6 4 | | 38 19 | | | | 71 16 | |
| 30 | 10 0 | 30 10 53 0 | 38 40 | 10 28 | | | | 34 5 | | | | 69 5‡‡ | |

Feb. Owing to moonlight nights or cloudy weather no observations were obtained until Feb. 22, when the comet (invisible to the naked eye) was seen by the aid of an ordinary ship's telescope about 1° or 1½° N.E. by E. from an unnamed star, whose distances are as under. The comet lay somewhat to the right of a line from said star to Canopus, bearing and distance being of course only estimated.

| | | | | E. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 22 | 8 35 | 22 4 4 0 | 41 30 | 70 50 | | | | 14 8 | | | | 60 17 |
| Mar. 3 | 8 0 | | 42 0 | 113 0 | Comet distinguishable through telescope, but too faint for sextant observations. | | | | | | | |

* Nucleus about 2nd magnitude, tail N.E. by E. 4°.

† Nucleus not visible until after stars of 3rd and 4th magnitudes have appeared, though after dark it appears about as bright as Markab, though less clearly defined.

‡ Tail very indistinct, though it lights up when a cloud obscures the larger stars in its vicinity.

§ Good observations. Tail more distinct.

‖ Tail visible halfway to η Ceti.

¶ Tail brighter than usual.

** Good observations.

†† Tail visible halfway to β Ceti.

‡‡ Observations not very good.

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# *Sextant Observations of Comet Pons-Brooks, January* 1884. By Capt. A. S. Thomson.

(*Communicated by Capt. H. Toynbee.*)

| Position. Lat. N. | | Long. W. | | | Date. | G.M.T. | Centre of Nucleus and Star | Angular distances. | Barom. at 32° F. and at sea level. | Temp. of Air, F. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ° | ″ | ° | ′ | ″ | | h m s | | ° ′ ″ | in. | ° | |
| 28 | 28 0 | 16 | 0 | 45 | Jan. 17 | 7 57 40 | Algenib | 23 0 54 mean of 3 obs. | 30·32 | 65 | The tail of the comet which shines faintly appears to the naked eye about 4° of arc in length, pointing towards the Pleiades. The nucleus is ill-defined, and its apparent diameter is about equal to that of the planet Jupiter. The angular distances observed between two stars are noted as an indication as to the value of the comet distances observed under similar conditions. |
| | | | | | | 8 17 40 | α Pegasi | 21 20 51 „ 3 „ | | | |
| | | | | | | 8 44 23 | Algenib & α Pegasi | 16 31 1 single obs. | | | |
| | | | | | | 8 48 23 | β Ceti | 20 34 49 „ | | | |
| | | | | | | 9 7 54 | Algenib | 23 2 50 mean of 2 obs. | | | |
| 28 | 26 30 | 16 | 5 | 0 | 18 | 8 19 30 | Algenib | 24 10 17 „ 3 „ | 30·32 | 67 | |
| | | | | | | 8 35 10 | α Pegasi | 23 35 17 „ 3 „ | | | |
| | | | | | | 8 47 10 | β Ceti | 18 28 23 „ 3 „ | | | |
| | | | | | | 8 58 40 | Algenib & α Pegasi | 16 29 59 „ 3 „ | | | |
| 28 | 34 40 | 15 | 43 | 20 | 19 | 8 32 15 | Algenib | 25 24 59 „ 2 „ | 30·41 | 65 | The tail of the comet now points a little to the north of the Pleiades. |
| | | | | | | 8 57 20 | α Pegasi | 26 33 44 „ 3 „ | | | |
| | | | | | | 9 6 0 | β Ceti | 16 25 44 „ 3 „ | | | |
| | | | | | | 9 15 0 | Algenib | 25 25 10 single obs. | | | |
| | | | | | | 9 30 0 | Algenib & α Pegasi | 16 30 41 „ | | | |

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